



CITY OF HOUSTON

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Mayor

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November 6, 2013

SUBJECT: Letter of Clarification No. 2
Large Submersible Pump Repair Services for the Public Works and
Engineering Department

REFERENCE: Invitation to Bid No. S30-L24754

TO: All Prospective Bidders

This Letter of Clarification is issued for the following reason(s):

- **To revise the above reference solicitation as follows:**
 1. **Bid line items have been changed. All bids submitted on or before November 6, 2013 must be submitted again.**
 2. **Remove pages 15, 16, 19, 20, 21, 22, 23, 24, 27, 31 and 34 and replace with pages 15, 16, 19, 20, 21, 22, 23, 24, 27, 31 and 34 marked Revised November 6, 2013.**
 3. **Add attached document "Certificate of Warranty"**

When issued, Letter(s) of Clarification shall automatically become a part of the proposal documents and shall supersede any previous specification(s) and/or provision(s) in conflict with the Letter(s) of Clarification. All revisions, responses, and answers incorporated into the Letter(s) of Clarification are collaboratively from both the Strategic Purchasing Division and the applicable City Department(s). It is the responsibility of the proposers to ensure that it has obtained all such letter(s). By submitting a proposal on this project, proposers shall be deemed to have received all Letter(s) of Clarification and to have incorporated them into this proposal.

If you have any questions or if further clarification is needed regarding this Invitation for Bid, please contact me at 832-393-8736.

A handwritten signature in black ink, appearing to read "Richard Morris".

Richard Morris
Senior Procurement Specialist

**Attachment: Pages 15, 16, 19, 20, 21, 22, 23, 24, 27, 31 and 34 marked Revised
November 6, 2013.**

to be replaced. This includes (but is not limited to) seals, bearings, and other items of a submersible pump unit.

- B.00.21 A City representative shall pickup or the Contractor shall **deliver** all non-repairable submersible pumps and **the** pump components from the Contractor's facility. Non-repairable units do not need to be reassembled, but shall be labeled per job number.
- B.00.22 Where hourly work is performed on behalf of the City, the Contractor (and approved sub-contractor) shall fully document the start of the work, the time spent on the job, and completion of each job. The documentation shall be punch card/time-card, shop record or any other mutually agreed method, see Exhibit B10 (Timesheets).
- B.00.23 RESERVED.
- B.00.24 Wherever torque values are known, the Contractor shall use a torque wrench and adhere to the OEM torque values.
- B.00.25 When requested by the UDR, the Contractor shall furnish parts needed for maintenance activities of submersible pumps by City Personnel. The Contractor shall charge the same price and mark-up or discount for these parts as scheduled in Bid Forms and Fee Schedule - Exhibit "H" under "Parts and Material."
- B.00.26 Paint booth shall not be used for sandblasting.
- B.00.27 Upon receipt of the submersible pumps the Contractor shall verify and document all information about the condition of the units including nameplate data. The Contractor shall inspect the unit and document the damaged and missing parts on the teardown report.
- B.00.28 The Contractor shall take digital photographs of each unit upon receiving from the City. In addition, the Contractor shall take digital photographs of all major components within the unit during the tear down that will be included in each Tear-Down Report (Exhibit B1). All photos shall be made available to the City upon request.
- B.00.29 In the case of dual horsepower units, charges shall be based only on the higher horsepower rating, never on both.
- B.00.30 Any equipment removed from City property shall be documented on a City (Equipment Authorization Release Form), see Exhibit B5. The department requesting services shall provide the form. The user department shall adjust the form to reflect the Contract, Ordinance and Service Release Order (SRO) numbers pertaining to this Contract.
- B.00.31 The Contractor shall provide a list, to the City of the name(s) and location(s) of shop(s) that will be used for specified repair work and obtain written approval before start of the contract. After the start of the contract, any additional subcontractor must be approved prior to commencement of work. The Contractor shall submit information on the subcontractor with a brief description and explanation of the addition. This addition will not take effect until written approval from the CTR is obtained.
- B.00.32 All metal parts shall be checked for structural integrity and cracks, and shall be repaired or replaced to meet required codes as well as industry and performance standards.

- B.00.33 Terminal boxes and auxiliary equipment enclosures shall be made to meet OEM's specifications.
- B.00.34 All illegible or defective nameplates shall be replaced upon completion of repair. All original nameplate information, except where changed, shall be stamped on new nameplate. New nameplates shall be permanently attached with mechanical fasteners. The cost of a new nameplate shall be included as a part of the base cost of any recondition-repair or rewind-repair.
- B.00.35 The Contractor shall install a stainless steel identification tag stamped with the contractor's name, job number, and repair date on each submersible pump. The tag shall be secured with stainless drive pins. The cost of the identification tag shall be included as a part of the base cost of any recondition-repair or rewind-repair.
- B.00.36 All submersible pumps with peeling paint or rust shall be sandblasted, **primed and painted**. The cost of sandblasting shall be included as a part of the base cost of any recondition-repair or rewind-repair.
- B.00.37 Assembled submersible pump units shall be tested for vibration. The vibration level shall not exceed 0.1 inches per second unfiltered. The vibration measurements shall be recorded on the final test sheet. For single vane impeller the vibration level shall not exceed 0.2 inches per second unfiltered. All costs associated with the vibration test shall be included as a part of the base cost of any recondition-repair or rewind-repair work.
- B.00.37.1 The vibration levels shall be specified by the OEM. If needed, the City will assist the Contractor to obtain the OEM data from the manufacture(s).
- B.00.38 The enclosed City of Houston forms in Exhibit B1 – B11: Teardown and Recommended Repair Report (Exhibit B1), U. L. Certification (Exhibit B2), Shop Acceptance Tests (Exhibit B3), Field Acceptance Tests (Exhibit B4), Equipment Release Authorization Form (Exhibit B5), Recommended Repair Estimate (Exhibit B6), Fits and Indicated Runout (Exhibit 7), Progress Status Report (Exhibit B8), Invoice Checklist Report and Timesheet Report Forms (Exhibit B9) included in this document shall be used on each recondition-repair, rewind-repair, and new submersible pump purchases; Time Sheet Approval (Exhibit B10); and PM/PdM Schedule (Exhibit B11).
- B.00.39 Steam clean area shall be so designed with all the run-offs captured into an approved oil/grease recovery system.
- B.00.40 Delivery tickets and packing slips will contain quantity, part number, description of commodity delivered, name of department or section, facility name to which the merchandise originated from, the City of Houston Ordinance, Contract and SRO numbers, signature of UDR, signature of receiving employee, printed names, employee number, date received and the authorization release number.
- B.00.41 The repair shop must be able to verify all hours charged for machine work. This will apply to work done by the Contractor and/or Sub-Contractor(s). The hours worked on the City's equipment shall be supported with time cards when applicable to hourly rates. The original time cards shall be submitted with the final invoice.

the submersible pumps in lieu of replacement unless the repair cost of the electric submersible pumps exceeds seventy (70) percent of the cost for replacing it with a new item. Generally the seventy (70) percent rule applies, but the City reserves the right to purchase or repair units based on submersible pump economic evaluation and various operational considerations.

- B.02.02 The CTR must approve, in writing, the purchase of a new unit in lieu of repair.
- B.02.03 The Contractor shall obtain three (3) quotes for items estimated to cost more than \$50,000.00, when applicable. The City of Houston has the option of accepting the lowest and best quote. The City reserves the right to solicit quotes for replacement items.
 - B.02.03.01 If the equipment is a sole source item, vendor shall obtain a "signed" and dated letter from the manufacturer stating so. This letter shall list the sole distributor for the Houston area. The manufacturer's letter is valid for thirty (30) days.
- B.02.04 Replacement unit shall be identical to the unit being replaced. If the identical unit is no longer offered by the manufacturer, the replacement unit shall have the same pump performance characteristic and similar physical dimensions as the one being replaced and shall be of the "Highest Efficiency" submersible pump(s) available. Replacement shall be authorized in writing by the CTR.
- B.02.05 The replacement unit must meet the minimum specification requirements and be equal or better in material, craftsmanship, and performance as the replaced pump.
- B.02.06 The replacement unit provided must be able to fit the facilities existing pump mounting and railing system without any required modification to the facility. The City reserves the right to request a specific pump that may require facility modification.
- B.02.07 The Contractor shall use the mark-up or discount in Fees and Costs (Exhibit H) under "Cost to Replace a Unit".
- B.02.08 If the unit is not repaired or replaced, then the unit shall be deemed "Non-Repairable" The Contractor shall invoice the City per the fee schedule item "Non-Repairable Cost." This cost shall include, but not limited to digital photos, tear-down and/or the D & I.
- B.02.09 The Contractor is responsible for ordering the correct parts and/or replacement unit, within five (5) days of the acceptance of the signed approval sheet from the UDR or CTR. The confirmation of each order shall be provided in writing form the Contractor to the UDR.
 - B.02.09.1 If the parts and/or replacement unit has NOT been ordered within the specified time (5 days) a 5.0% discount shall be applied to the final invoice amount each (business) day the part was not ordered **unless written proof (reason for delay) is provided by Contractor via pump distributor and/or manufacturer**. The deduction shall not exceed **fifteen percent (15)** of the final invoice amount.
 - B.02.09.2 If Contractor orders the incorrect part(s) and/or incorrect replacement unit that may cause a delay in delivery of completely assembled unit, then a

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fifteen percent (15%) deduction of the final invoiced amount shall be accessed as liquidated damages.

B.03 SPECIFIC TASKS AND SCOPE OF WORK

- B.03.01 In the event the User Department chooses to transport the pump to and/or from the Contractor's facility no transporting fee shall be assessed to the City. If the Contractor transports the pump, then the Contractor shall furnish hoist, crane, other services associated with loading and/or unloading the unit.
- B.03.02 The Contractor shall chemically and mechanically clean all external surfaces, as required.
- B.03.03 The Contractor shall perform electrical tests, with measurement recorded in the Teardown Report. These include but are not limited to:
- Insulation resistance to ground, in meg-ohms, of windings and accessories.
 - Surge-comparison of winding
 - Growler test
 - Thermal Imaging Test
- B.03.04 The Contractor shall measure insulation resistance to ground of windings and accessories with a 500 – 1,000 Volt meg-ohm meter (EASA AR100-2010 4.2.1).
- B.03.05 In the event that insulation resistance of the windings is below the recommended minimum value, the motor shall be disassembled, and the windings shall be cleaned and dried before surge-comparison testing.
- B.03.06 The Contractor shall disassemble submersible pump units and clean all internal parts unless otherwise specified shall be included within base cost of Recondition or Rewind.
- B.03.07 The Contractor shall inspect all components of the submersible pump units and all critical areas to determine if clearances are within OEM tolerances, and the parts meet manufacturer's specifications.
- B.03.08 The Contractor shall inspect the unit and its shaft for corrosion, erosion, chipping, scoring, and other damages and shall record this observation on the teardown report.
- B.03.09 The Contractor shall inspect the rotor shaft for "roundness/runout" and determine if it is within OEM tolerance
- B.03.10 The Contractor shall inspect the pump casing, impeller, shaft sleeve, and wear rings for corrosion, erosion, chipping, scoring, and other damages and shall record this observation on the Teardown Report.
- B.03.11 The Contractor shall inspect the shaft extensions and key seats (keyways). Shaft extensions dimensions shall be checked and shaft must be smooth, polished, and

concentric with shaft center.

- B.03.12 The Contractor shall inspect each bolt for damaged threads.
- B.03.13 Repair shall include **from:** sandblasting, welding and machining as required. Other services required of the Contractor shall include Non-Destructive Testing (NDT), chroming and metalizing if and when required.
- B.03.14 The core iron, if needed, may be grit blasted with glass beads, walnut shells, corncobs, or similar materials. It shall not be blasted with silica, garnet, or other grits, which may cause shorts between laminations (EASA Tech Note 16).
- B.03.15 The Contractor shall determine what parts are to be machined or replaced with new parts. As a minimum the Contractor shall replace all bearings and seals when the original unit was furnished with such items.
- B.03.16 Within seven (7) working days of receipt of the pump, the Contractor shall Tear Down and inspect the pump for the Disassembly and Inspection (D&I) Report. The D&I Report shall include a brief root cause failure explanation. In addition, the D&I Report shall include, but not limited to the following:
 - Control and Power Cable Readings
 - Cable Length and Conditions
 - Conditions of Impeller / Volute
 - Condition of Wear-Ring
 - Megging of Motor
 - Condition / Presents of Nameplate
 - Motor Conditions (Rotor / Stator)
 - Conditions of Shaft / Bearings / Seals
 - Pump's (Manufacture / Model / Serial Number)
 - Digital Photos
 - Facility Location

B.03.16.01 If the D & I (disassembly and inspection) Report has not been completed and submitted within seven (7) business days of receiving the submersible pump, then five (5%) discount shall be applied to the final invoice amount ea0000000ch (business) day the D&I Report (Exhibit B) has not been submitted. The delay deduction shall not exceed fifteen percent (15%) of the final invoice.

B.03.16.1 The cost estimate shall be provided to the City within seven (7) working days of the Disassembly and Inspection (D&I) Report. The D&I Report and good faith and detailed cost estimate shall be submitted to the UDR. To be included with the cost estimate is a specific detailed statement of root cause of failure. This cost estimate shall include a brief description of the work to be performed, cost for new replacement OEM or Non-OEM parts, estimated additional labor hours required for the repair of the unit not covered under rewind/or recondition base cost and shall include the estimated time for delivery of parts and expected completion date of work.

B/03/16/2 **The Cost Estimate (Exhibit B) shall be provided to the City within seven (7) working days of the Disassembly and Inspection (D&I) Report.** If the cost estimate is not provided within the specified time, a 5.0% discount shall be applied to the final invoice amount each (business) day that a quotation is not provided, **unless written proof (reason for delay) is provided by the Contractor, distributor and/or manufacturer.** The deduction shall not exceed fifteen percent (15%) of the final invoice amount.

B.03.16.3 Each maximum penalty due to delays (i.e. – D & I Report, Cost Estimate and Ordering Incorrect Parts and/ or Incorrect Replacement Units due to Contractor's negligence) shall not exceed a combined value of fifteen (15%) discount to the final overall Invoice to the City of Houston.

- B.03.17 The UDR will inspect the torn-downed unit, review the Contractor's proposed work scope and cost estimate. If the cost exceeds the budget per fiscal year, the UDR shall revise the scope and have the Contractor submit another cost estimate within five (5) days.
- B.03.18 Upon written acceptance of cost estimate by the UDR, the Contractor shall proceed with repairs. The Contractor shall commence to work on the unit and complete the repair within the allocated time for delivery of such item:
- B.03.18.1 Submersible Pumps **greater than 125HP, 12 weeks**
- B.03.19 The Contractor shall notify the UDR immediately in writing if the Contractor cannot complete the job within the contractually agreed time period for the unit.
- B.03.20 The Contractor shall submit to the UDR a written detailed explanation for the delay with a new documentation to complete the job. If additional work is required, the Contractor shall submit explanation before commencing the additional work.
- B.03.21 At all times during the repair process, the Contractor shall maintain the City's equipment in a clean and weather protected storage area.
- B.03.22 The rotor assembly shall be checked for total indicated run out and recorded on the rotor information sheet. The check shall be carried out in precision "V-Blocks.
- B.03.23 Shaft seal surface, bearing journals, shall be micrometer checked and results shall be recorded on the rotor information sheet within the D&I Report.
- B.03.24 The critical dimensions of the end bells and bearing housing shall be micrometer checked and recorded on the mechanical inspection sheet within the D&I Report.
- B.03.25 The above measurements shall be submitted to the UDR, along with the electrical and mechanical data sheets, during the teardown inspection.
- B.03.26 Replacement bearings shall have an L₁₀ rating life in accordance with ANSI/AFBMA of at least 40,000 hours of service life. If the existing bearings have exceeded L₁₀ rating life (40,000 hours), then the Contractor shall replace the bearing with the same L₁₀ rating life bearing as the existing one.
- B.03.27 The Contractor shall ensure the quality of varnish in the Dip Tank and the VPI system by sampling and testing the varnish in the DIP Tank/VPI system every three months. The Contractor shall have the varnish quality reports available for review by the City Inspection Team and the UDR.
- B.03.28 After parts have been repaired, the Contractor shall put together and balance the rotating assembly. The Contractor shall balance the rotor first, and then balance the assembled rotor and impeller.
- B.03.29 The Contractor shall reassemble the submersible pump unit seal, paint and test as required.

- B.03.30 Surface of all RECONDITION-REPAIR and REWIND-REPAIR units shall be prepared for painting to white metal finish by blast cleaning to surface preparation standards and specifications (SSPC-SP5).
- B.03.31 Surface of all RECONDITION-REPAIR and REWIND-REPAIR units shall be primed and finished, in an approved paint booth, using the unit manufacturer's standard epoxy painting system:
- The minimum primer coat thickness shall be 3 mils DFT, dry film thickness (DFT).
 - The minimum finish coat thickness shall be 6 mils DFT, dry film thickness (DFT).
- B.03.32 If the manufacturer's "standard epoxy painting" information is not available, the following industrial coating specification for surface of pumps and equipment shall be followed:
- The primer and finish coats shall be two-component, rust-inhibitive, polyamide-cured epoxy coating with a recoatable finish,
 - The prime coat shall be Ameron 38P, Tnemec 69, or equal.
 - The finish coat shall be Ameron 38S, Tnemec 69, or equal.
- B.03.33 Changes to paint specifications (item B.03.29, B.03.30 and B.03.31) shall be approved by the UDR prior to application of paint.
- B.03.32.1 The paint color shall be as the OEM standard for such units unless specifically requested otherwise, in writing by the CTR.
- B.03.34 The user department will specify the paint color.
- B.03.35 Whenever needed, OEM or approved substitute specified lube/cooling oils, or equal, shall be used in the oil chamber. The lube/cooling oils shall be biodegradable, nontoxic, and FDA approved.
- B.03.36 Greases and/or Lubricants used on bearings shall be OEM specified or approved equal.
- B.03.37 All electrical work for RECONDITION-REPAIR and REWIND-REPAIR of the units shall be in accordance with Item B.04.02 (Recondition) and B.04.03 (Rewind).
- B.03.38 Before disassembly and inspection (D & I Report) nameplate data shall be verified, all missing or damaged parts shall be identified in writing, recorded, and special items shall be noted on the inspection form.
- ~~B.03.38.1 D & I (disassembly and inspection) shall be performed within seven (7) business days of the submersible pump being received into Contractor's shop (see Exhibit B5 Equipment Release Form). In the event the submersible pump cannot and/or will not be D & I within the specified seven (7) business days, then the Contractor shall provide in writing the cause of delay.~~**

~~B.03.38.2 The D & I (disassembly and inspection) shall be provided to the City within seven (7) business days of the Contractor's submittal of the D & I Report. If the D&I Report is not provided within the specified time, a 5.0% discount shall be applied to the final invoice amount each (business) day that a quotation is not provided. This delay deduction shall not exceed thirty percent (30%) of the final invoice amount, unless written proof of delay is provided by the Contractor, distributor and/or manufacturer.~~

B.03.39 The Contractor shall establish and maintain records of the repair and services performed for at least 2 years after contract expires and also at least three (3) years after the submersible pump is returned to the City. These records shall be provided if requested by the CTR.

B.03.40 The field TIME SHEETS should be signed DAILY by the UDR at the facility location, however if UDR and/or CTR is not present, then timesheet can be signed by City employee (with Employee ID #) at designated facility where work was performed. ALL TIME SHEETS shall be approved by the UDR and/or CTR on the last working day of each week.

B.03.41 The Contractor shall be responsible for, but not limited to disconnecting, transporting, disassembling and inspecting (D &I), repairing, aligning to drive-shaft, replacing and installing submersible pumps along with any necessary associated equipment.

B.03.42 In the event the contractor cannot repair and/or replace the submersible pump, the City permits, with CTR's written approval, the Contractor to purchase a replacement unit from the manufacturer that include new, reconditioned and/or remanufactured submersible pumps according to OEM specifications based on the needs of each facility or location.

B.03.43 The Contractor shall perform Preventative Maintenance (PM) and/or Predictive Maintenance (PdM) on submersible pumps on an as needed basis per facility. A PM and/or PdM schedule shall be provided in writing to the UDR, whom will coordinate with the City for pumping station shutdown and/or availability.

B.03.43.1 The Contractor shall be responsible for pump disconnection and/or connection, crane rental and other associated items to conduct PM's and/or PdM's. The labor and material will be captured by the existing Fee Schedule (Exhibit H).

B.04 MOTOR INSPECTION AND REPAIR

B.04.01 MOTOR INSPECTION AND REPAIR-GENERAL

B.04.01.01 The Contractor shall provide a repair data sheet showing the condition of the motor upon receipt, the repair work done and the final test results.

B.04.01.02 During disassembly, the motor shall be visually inspected to determine

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with a compression lug with NEMA standard bolt hole.

- B.04.03.16 The finished stator winding insulation to ground shall be checked with a 500 – 1,000 Volts megger. The minimum acceptable insulation resistance reading shall be 10 mega-ohms.
- B.04.03.17 The completed stator shall be preheated in a temperature-controlled oven to the varnish manufacturer's recommendation, not to exceed class "F" operating temperature and shall be held at this temperature for one (1) hour.
- B.04.03.18 Stator shall be allowed to cool by natural convection to the temperature required by insulation resin manufacturer prior to being dipped in insulating varnish.
- B.04.03.19 Stator shall be dipped three (3) times in insulating varnish, repeating processes of items B.04.03.17 and B.04.03.18.
- B.04.03.20 Random-Wound / Form-Wound stators shall go through dip tank process, **however, when applicable vacuum pressure impregnation (VPI) process shall be an additional cost not to be included in the standard Rewind Repair Cost.**
- B.04.03.21 Baking shall be done in a temperature controlled and force ventilated oven to allow a complete and uniform cure per pump manufacturer's specifications.
- B.04.03.22 Resin shall be completely removed from the stator frame to mechanically fit the outer paint surfaces, and the inner bore of the stator.

B.05 STANDARD RESPONSE TIMES

- B.05.01 Contractor shall be accessible to the City via telephone during normal business hours. The Contractor shall be ready to start work on any unit within twenty-four (24) hours of receiving the call for the service.
- B.05.02 The Contractor shall be available and accessible to the City via telephone to work overtime and/or emergency per the request of the UDR within six (6) hours of initial contact from UDR and/or CTR.
- B.05.03 The Contractor shall start an emergency job immediately, without scheduling delays, and will not be restricted to normal working hours. The UDR shall coordinate the emergency and overtime work approved by CTR.

B.06 REPAIR TECHNICIANS

- B.06.01 The Contractor's repair technicians shall be qualified, properly trained in repair-recondition of submersible pumps of the type and sizes specified for this contract.
- B.06.02 The Contractor shall have at least one senior repair technician with a minimum of five (5) years' experience in repair and/or overhaul of submersible pumps specified in this contract.

- B.12.1.3 Check for stoppage or blockage within volute.
- B.12.1.4 Check amperage and voltage for each phase, which includes power and control cables (before pump pulled while in service; during pump on deck; and after pump re-installed).
- B.12.1.5 Contractor shall megger each pump according to voltage.
- B.12.1.6 Check conditions of electrical cables (controls and power).
- B.12.1.7 Check electrical configuration in control panel(s).
- B.12.1.8 Check impeller for wear or abnormal characteristics.
- B.12.1.9 Check power and control cables for proper fitting.
- B.12.1.10 Check for presence of kellum grips and/or conditions.
- B.12.1.11 Check for nameplate.
- B.12.1.12 Digital photographs shall be submitted within PM/PdM Report.

B.12.2 The Contractor shall invoice the PM according to the Fee Schedule (Exhibit H).

B.12.3 The crane rental and parts needed to be replaced are not included in PM rate per submersible pump.

B.12.4 Each scheduled round of PM's and/or PdM per facility shall include a one-time mobilization and demobilization fee. The mobilization and be captured using Exhibit H (Fee Schedule) – Line Item "Field Labor Rate." The total mobilization and demobilization per facility shall not exceed four (4) hours: (2) hours of mobilization and (2) hours of demobilization. However, the total mobilization and demobilization hours shall be mutually agreed upon based on a projection of total "Field Labor Rate" hours between UDR/CTR and Contractor prior to proceeding forward with any PM's and/or PdM's per facility.

B.12.5 The frequency of all PM's and PdM's shall occur per the request and/or the needs of each facility. As a result, predefined frequency shall be determined at the beginning of each fiscal year established by UDR/CTR and Contractor.

B.13 INVOICES

No later than 30 days after the City accepts and receives the pump, the Contractor shall submit invoices for payment in triplicate (one original and two copies) that are on Contractor's company stationary with the original signature of an authorized agent of the company. In addition, all invoices shall be submitted by May 30th of each fiscal year to ensure payments are paid by the end of each fiscal year. ALL SUPPORT DOCUMENTS SHALL BE ORIGINAL. The invoice number shall not be duplicated during the term of the contract. Each invoice shall include the following information:

B.13.01 The City Contractor Number, City Ordinance Number, City Release Number, and Contractor's Job Number.

B.13.02 The Contractor's Job Number and Contract year shall appear clearly on all time sheets (showing hours worked, break(s) and lunch time), and suppliers' invoices.

B.13.03 The Contractor's name and address and where the service was performed.

B.13.04 The City equipment EI Number, and City Work Order Number.

B.13.05 The City Facility Number and address where equipment had been prior to service.

B.13.06 Detailed description of services rendered.

B.13.07 Description of parts or components repaired or replaced. Provide part numbers, listing before and after discount. If parts are new OEM or new Non-OEM or reconditioned, the costs of recondition parts must be listed as well as the cost of new OEM or Non-OEM replacement parts.

B.13.08 RESERVED.

B.13.09 Detail Labor hours and rates as stated in the contract Exhibit "H" entitled "Fees and Costs".

Exhibit A

Definitions

As used in this Agreement, the following terms have the meanings set out below:

1. "Additional Services" shall mean other services to repair and/or replace systems associated with the Submersible pump, not otherwise described in this specification, to bring the equipment to the working conditions agreeable to the Director, CTR and/or COR.
2. "Agreement" means this contract between the Parties, including all exhibits, change orders, and any written amendments authorized by City Council and Contractor.
3. "Submersible Pump Groups" means the submersible pumps for the purpose of this contract are grouped such as to represent the type, manufacturer and the horsepower of the unit.
4. The existing and/or future submersible pumps at the City of Houston Wastewater facilities include: Lift/Pumping Stations, Dewatering and Disinfection Submersible.

<u>Group</u>	<u>Type of Submersible Pump / Manufacturer</u>	<u>Size of Drive (Horsepower)</u>
1	Flygt	>125hp and ≤150hp
	Flygt	>150p and ≤175hp
	Flygt	>175hp and ≤200hp
	Flygt	>200hp and ≤250hp
	Flygt	>250hp and ≤300hp
	Flygt	>300hp and ≤350hp
	Flygt	>350hp and ≤400hp
	Flygt	>400hp – Greater hp
2	KSB/ Myers	>125hp and ≤150hp
	KSB/ Myers	>150hp and ≤175hp
	KSB/ Myers	>175hp and ≤200hp
	KSB/ Myers	>200hp and ≤250hp
	KSB/ Myers	>250hp and ≤300hp
	KSB/ Myers	>300hp and ≤350hp
	KSB/ Myers	>350hp and ≤400hp
	KSB/ Myers	>400 – Greater hp
3	Miscellaneous	>125hp and ≤150hp
	Miscellaneous	>150 and ≤175hp
	Miscellaneous	>175hp and ≤200hp
	Miscellaneous	>200hp and ≤250hp
	Miscellaneous	>250hp and ≤300hp
	Miscellaneous	>300hp and ≤350hp
	Miscellaneous	>350hp and ≤400hp
	Miscellaneous	>400hp – Greater hp

5. RESERVED.
6. "Agreement" means this contract between the Parties, including all exhibits, change orders, and any written amendments authorized by City Council and Contractor.
7. RESERVED.
8. "City" is defined in the preamble of this Agreement and includes its successors and assigns.
9. "City of Houston Normal Business Hours" shall mean 8:00 a.m. to 5:00 p.m., Monday to Friday, except on days which are considered City holidays.
10. "City Purchasing Agent" is defined as the person or duly authorized successor, authorized in writing to act for the City. The term includes, except as otherwise provided in this Contract, the

Document 001

WARRANTY OF INSTALLATION, REPLACEMENT,
REPAIR AND MAINTENANCE

BID NO:

OUTLINE AGREEMENT NO: [No.]

TO: [Contractor's Company Name]

Contractor and [Contractor's Address]

Address for Written Notice

1.01 DATE OF SUBSTANTIAL COMPLETION

The Work performed under the Contract was inspected on [Date inspected], and found to be substantially complete. The Date of Substantial Completion of the Work is hereby established as [Date of Substantial Completion]. This is the start date of Warranty.

1.02 WARRANTY PERIOD

The contractor fully warrants its installation, replacement, repair and maintenance of all parts and equipment from the date of acceptance by the City of Houston and the Contractor, which includes installation, testing of parts and equipment **for a twelve (12) month period.**

1.07 CONTRACTOR'S ACKNOWLEDGEMENT

Signature of Contractor, or its agent, acknowledges Warranty Work and the terms of Warranty Period referenced under Warranties, Paragraph B.11.03.

_____ Contractor	_____ Signature	_____ Date
_____ CTR, Wastewater	_____ Signature	_____ Date
_____ CTR, Drinking Water	_____ Signature	_____ Date
_____ UDR, Wastewater	_____ Signature	_____ Date
_____ UDR, Drinking Water	_____ Signature	_____ Date

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SPECIFICATIONS

CITY OF HOUSTON
STANDARD DOCUMENT

CERTIFICATE OF
WARRANTY

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